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REMARKS

This is a response to the outstanding non-final Office Action mailed January 4, 2006. Briefly, claims 1-12 have been cancelled and new claims 13 through 17 have been submitted.

Newly presented claim 13 recites an electrolyte for a metal-oxygen battery where oxygen is reduced at a cathode surface to produce O^{-2} or O_2^{-2} ions, where the electrolyte comprises a lithium and a non-aqueous solvent. Claim 14 recites a metal-oxygen battery where oxygen is reduced at a cathode to produce O^{-2} or O_2^{-2} ions. As indicated in the Amendment submitted October 17, 2005 by the Applicant, the metal-oxygen battery is distinguished from the non-aqueous electrolyte secondary battery (also called a lithium-ion battery). First, the metal-oxygen battery uses a soluble material for the cathode (e.g., O_2) that needs to be transported through the bulk of a carbon black electrode that acts as a current collector for the cathode reaction ($O_2 + 2e^- \rightarrow Li_2O_2$). The lithium-ion battery, and other lithium primary batteries, already have the cathode material in place with no transport being necessary. Also, the metal-oxygen battery functions properly only when the O_2 can be transported into the cell and through the electrolyte in a quick and efficient manner. It is the ability of the electrolyte to transport the O_2 that is of most importance and is what distinguishes a lithium-oxygen battery electrolyte from a lithium-ion battery electrolyte. The applied references of record, Kasamatsu et. al. and Kawakami, taken either alone or in combination do not appear to teach or suggest claimed metal-oxygen and electrolyte therefore.

Further, another factor that distinguishes a metal-oxygen battery from a lithium-ion battery is that the discharge product ($2Li^+ + O_2^{-2} \rightarrow Li_2O_2$) is deposited in the cathode as a solid and discharge ends when the carbon black electrode is full of Li_2O_2 . Discharge in a

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lithium-ion battery ceases when all of the available lithium in the anode is shuttled over to the cathode. Further arguments as to the distinctions between these batteries is set forth in pages 2 through 13 of the Remarks portion of the Applicants Amendment of October 13, 2005 and are incorporated herein.

For the reasons presented above, which are further supported in Applicants Amendment of October 13, 2005, it is believed that the newly presented claims 13 through 17 are allowable over the applied references of record.

Please charge the fee for this Amendment and a Three Months Extension of Time filed herewith to the U.S. Patent Office Deposit Account number 19-2201 for the U.S. Army Materiel Command to cover the cost of the extension. Any deficiency or overpayment should be charged or credited to this numbered Deposit Account

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